Occupational change: pursuing a different kind of work

More than half of the 10 million workers who switched occupations in 1986 did so because of better pay, working conditions, or advancement opportunities; however, about 1 in 8 of the workers changed occupations because they lost their previous jobs

James P. Markey and William Parks II

n important decision facing young jobseekers is the choice of an occupation. The initial selection, though, is by no means etched in stone, as most individuals are likely to change occupations at some point in their worklife. An occupational change can take place for a variety of reasons—a teenager changing summer jobs, an employee receiving a promotion, a worker choosing to make a career change, or an individual forced to change occupations after losing a job. The most recent measure of such changes, from a January 1987 survey, found that nearly 10 million persons were in different occupations than a year earlier. The majority had changed voluntarily, citing better pay, advancement opportunity, or working conditions as their reason for switching. Some 1.3 million workers, however, were in different occupations because they had lost their previous

This article explores the characteristics of those workers who make voluntary and involuntary occupational changes, and examines the pattern of their movement between occupations. The data were obtained through a supplement to the January 1987 Current Population Survey (CPS), which asked questions on occupational mobility, occupational tenure, and time with current employer.

The principal findings of this study are:

- Age is the key factor in determining occupational mobility. The high mobility rates of young workers contrast sharply with low rates among middle-age and older workers.
- Higher levels of education are generally associated with higher rates of voluntary mobility. However, very occupationspecific training, such as many professionals receive, reduces occupational mobility.
- Career change—such as the kind that occurs when a person with some tenure in an occupation changes both occupation and employer—is not common.
- Involuntary occupational changes often lead to lower pay in the new job. The majority of workers changing occupations after job displacement are leaving goods-producing industries for jobs in the faster growing service-providing sector.

The concept of occupational mobility

The distribution of employment by occupation reflects the choices of individual workers and the demand structure of the overall economy. Workers bring their experience, abilities, and desires for certain types and conditions of work to the marketplace. The occupational demand

James P. Markey and William Parks II are economists in the Office of Employment and Unemployment Statistics, Bureau of Labor Statistics.

they encounter reflects the technological and economic conditions of the day. The present demand for computer technicians, for instance, would have been unimaginable just a few decades ago; it represents the response of the labor market to a rapidly expanding technology. Changes in the economy's mix of industries—some growing and some declining—also strongly affect the overall occupational distribution, as each industry has unique needs in terms of workers' skills.

Occupational mobility can be thought of as a process that helps ensure the smooth operation of the economy. In most cases, it allows individual workers to improve their job satisfaction through increased pay, status, and responsibility, or through better working conditions. At the same time, occupational mobility is a prime means for the economy to adjust to new demand conditions. Thus, relatively free movement of workers between occupations can be beneficial, from the standpoint of both the individual and the economy.

The January 1987 CPs supplement measured occupational mobility through a single question regarding the labor force status of individuals.

Specifically, persons employed in January 1986 and January 1987 were first asked, "You told me that . . . is now working as . . .;" then, "Was . . . doing the same kind of work a year ago, in January 1986?" A negative response identified individuals as occupationally mobile; the survey revealed that nearly 10 million persons had changed occupations during 1986.

The occupational mobility rate expresses the occupationally mobile population as a percentage of the persons employed in both January 1986 and January 1987. The occupational mobility rate for this period was 9.9 percent, little changed from 9.7 percent in January 1983, when such data were last collected. In fact, rates of occupational mobility have been fairly stable over the last 20 years (table 1)

Data were also collected in January 1987 on the reasons for changing occupations, permitting an examination of the motivations behind occupational switches. More than half of those who changed occupations said they had done so for better pay, advancement opportunities, or working conditions. And, in fact, nearly 7 of 10 workers who changed occupations voluntarily reported receiving higher earnings in their new

Table 1. Occupational mobility rates for employed civilians by sex and age, [In percent]

| | Both sexes | 1965-66 | 1972-7 | 3 1977-78 | 1000 | | |
|---|---|--|--|---|---|---|---|
| Total, 16 years and older 16 to 19 years 20 to 24 years 25 to 34 years 35 to 44 years 35 to 44 years 35 to 64 years 36 years and older 16 to 19 years 36 to 9 years 37.4 46.2 47.4 48.8 47.7 46.2 48.8 47.7 48.8 47.7 48.8 47.7 48.8 47.7 48.8 47.7 48.8 47.7 48.8 47.7 48.8 48.8 | Total, 16 years and older | | | 1 | 1980-81 | 1982-83 | 1986-8 |
| 25 to 34 years | Total, 16 years | 18.9 | 9.0 | 12.0 | 11.0 | 9.7 | 9.9 |
| 0tal, 16 years and older 16.9 8.4 12.2 12.0 10.2 10.4 25 to 34 years 26.4 36.0 32.6 24.6 28.7 35 to 44 years 8.5 9.9 14.4 13.9 11.9 11.8 45 to 54 years 5.3 6.3 9.3 8.9 7.8 8.5 55 to 64 years 4.7 3.3 5.1 5.8 4.9 4.9 35 years and older 2.4 2.4 2.4 3.6 2.7 4.9 4.9 | 25 to 34 years 35 to 44 years 45 to 54 years 55 to 64 years 65 years and older Otal, 18 years and older, not in school | 28.5 13.8 7.4 5.2 3.8 2.7 | 30.3 25.0 12.4 6.2 3.5 2.6 1.7 | 35.9 27.3 15.5 8.1 4.5 3.4 2.0 | 28.7 23.8 12.4 7.4 4.4 3.5 1.6 | 25.6 21.3 11.5 6.7 4.8 3.1 | 29.4 22.2 11.4 7.0 4.7 2.7 |
| | Dtal, 16 years and older 16 to 19 years 20 to 24 years 25 to 34 years 35 to 44 years 45 to 54 years 55 to 64 years 56 years and older | 14.9 8.5 5.3 4.7 2.4 | 26.4 18.9 9.9 6.3 3.3 2.4 | 12.2 36.0 22.9 14.4 9.3 5.1 3.6 | 12.0 32.6 22.8 13.9 8.9 5.8 2.7 | 10.2 24.6 20.1 11.9 7.8 4.9 3.8 | 10.4 28.7 21.0 11.8 8.5 4.9 3.2 |

NOTE: Occupational mobility rates are the number of persons employed in a different occupation in the prior year as a proportion of the total employed in both years. Dash indicates data not available.

Among workers

25 and older,

widespread

occupational

changes are

relatively

uncommon.

voluntary

Employed persons who changed occupations between January of 1986 and 1987, by Table 2. reason for change, age, sex, race, and Hispanic origin

[Percent distribution]

| | | Job losers | | | Job leavers | | | | | |
|---------------------------|---|------------|---------------------------------------|----------------------------------|--|---|---|------------------------------------|----------------------|--|
| Characteristic | Persons who changed occupations (in thousands) | Total | Displaced from previous job1 | Other job losers ² | Wanted better pay or working conditions | Changed from part- time to full- time work | Changed from full- time to part-time work | Moved to different residence | Other job leavers | |
| Total, 16 years and older | 9,957 | 100.0 | 9.5 | 3.4 | 53.0 | 2.5 | 1.3 | 6.6 | 23.9 | |
| | F 004 | 400.0 | 11.4 | 4.2 | 52.3 | 2.0 | .8 | 5.3 | 23.9 | |
| Men, 16 years and older | 5,391 | 100.0 | 8.3 | 3.9 | 54.5 | 2.8 | 1.2 | 7.5 | 21.8 | |
| 16 to 24 years | 1,832 | 100.0 | 13.0 | 4.4 | 51.1 | 1.6 | .6 | 4.2 | 25.0 | |
| 25 years and older | 3,559 | 100.0 | | 4.4 | 56.4 | 2.2 | .2 | 4.9 | 20.5 | |
| 25 to 34 years | 1,943 | 100.0 | 11.0 | 3.8 | 49.8 | .9 | l .ī | 3.3 | 27.7 | |
| 35 to 44 years | 984 | 100.0 | 14.3 | | 37.9 | 1.1 | .3 | 3.7 | 33.2 | |
| 45 to 54 years | 436 | 100.0 | 17.7 | 5.9 | 33.8 | 1.0 | 7.8 | 2.5 | 38.0 | |
| 55 years and older | 196 | 100.0 | 16.1 | ., | 35.0 | 1.0 | 1.0 | | 1 | |
| | | 400.0 | 7.0 | 2.4 | 53.8 | 3.0 | 1.8 | 8.0 | 23.8 | |
| Women, 16 years and older | 4,566 | 100.0 | 7.2 5.4 | 2.7 | 54.2 | 3.9 | 1.4 | 9.7 | 22.7 | |
| 16 to 24 years | 1,593 | 100.0 | 8.2 | 2.7 | 53.6 | 2.6 | 2.0 | 7.1 | 24.3 | |
| 25 years and older | 2,973 | 100.0 | 6.7 | 1.9 | 57.6 | 2.7 | 1.6 | 8.1 | 21.4 | |
| 25 to 34 years | 1,517 | 100.0 | 10.2 | 2.1 | 54.1 | 2.2 | 1.4 | 6.6 | 23.4 | |
| 35 to 44 years | 951 | 100.0 | 9.3 | 2.1 | 43.5 | 3.0 | 1.8 | 5.9 | 34.4 | |
| 45 to 54 years | 350 | 100.0 | 9.3 8.5 | 5.2 | 33.9 | 2.9 | 9.5 | 3.3 | 36.6 | |
| 55 years and older | 155 | 100.0 | 6.5 | 5.2 | 30.9 | 1 | | | İ | |
| | 0.040 | 1000 | 9.0 | 3.1 | 53.2 | 2.6 | 1.3 | 6.6 | 24.1 | |
| White | 8,849 | 100.0 | 14.9 | 5.4 | 51.3 | 1.4 | .6 | 6.5 | 20.0 | |
| Black | 831 | 100.0 | 14.9 | 5.7 | 44.5 | 3.7 | 1.0 | 8.0 | 22.9 | |
| Hispanic origin | 635 | 100.0 | 14.1 |] 3., | 1 77.5 | 1 | 1 | | | |
| Total, 25 years and older | 6,532 | 100.0 | 10.8 | 3.4 | 52.2 | 2.1 | 1.2 | 5.5 | 24.7 | |

¹ Includes persons who lost or were laid off from their previous job because of plant closings or moves, stack work, or the abolishment of their positions or shifts.

jobs. An additional one-fifth reported receiving about the same earnings; they, along with the small proportion who cited lower earnings in their new occupation, most likely changed for the prospect of better working conditions or advancement opportunities which they expect will lead to higher pay.

One in ten of those changing occupations had switched after losing their job because of a plant closing or relocation, slack work, or the abolishment of their positions or shifts. The list of other reasons for occupational change also included "moved to different residence," a reason most often given by young persons. One in four workers who changed occupations, including more than a third of those age 55 and older, cited "other reasons," which most likely included retirement-related decisions. (See table 2.)

Voluntary occupational change

Individuals change occupations for many reasons, both economic and noneconomic. Factors of a noneconomic nature include the quest for greater status, job satisfaction, or responsibility, to name a few. Economic-based decisions include switching occupations in order to accumulate marketable skills or to increase pay. Many studies interpret occupational changes for the latter reasons as signals of upward job mobility, which often implies career-upgrading.

The notion of what constitutes a career is surprisingly complex, and its precise definition has often been debated. While some analysts define a career as a certain number of years in one occupation, most theorists go a step further and look for a "succession of related occupations"3 where "one job [leads] to another, related in function and higher in status."4 The career distinction is found in the difference between simple job switching and a long-term commitment to upward movement through a sequence of related occupations.⁵

The CPS occupational mobility data are of a limited longitudinal nature and, therefore, are not designed to provide information on the career paths of individual workers. However, analysis of the data can contribute to the overall career literature by examining, for a crosssection of workers, one of the crucial events in career-building: an occupational change. Following is a discussion of the characteristics of the 5.3 million workers who voluntarily made

² Includes persons who lost or were laid off from their previous job because of the completion of seasonal work, failure of a self-operated business, or other reasons.

such a move sometime between January 1986 and 1987.

Who are they? The U.S. work force is considered to be quite mobile, particularly in comparison with many European nations. However, among workers 25 and older, widespread voluntary occupational changes, and by inference, widespread career changes, are relatively uncommon. This is shown by the low rates of voluntary occupational mobility in table 3. Even among younger workers, those under age 25, only 1 in 8 switched occupations voluntarily during 1986.

Age, in fact, is the single most salient determinant of voluntary occupational mobility. It has been deemed a "socioeconomic law" that, as the age of an individual increases, the likelihood of his or her experiencing occupational mobility decreases (table 3).6 The vast majority of workers making a voluntary change were under age 45 (92 percent).

The widespread notion of substantial voluntary occupational changes by middle-age persons—so-called midlife career changers—is not supported by these data. There is no one age group that breaks the pattern of reduced mobility with higher age; the pattern holds, in fact, among all groups, regardless of demographic or educational characteristics. Also, while historical data on voluntary mobility rates are not available, comparing the January 1987 overall mobility rates for middle-age persons to their rates in the last 20 years provides no evidence that the incidence of midlife career changing has increased (or decreased) over time.

The age/mobility relationship can be explained using human capital theory, which focuses on individuals and their efforts to increase their value in the marketplace. Simply stated, workers consider any action they may take to improve their earnings potential-education, training, skill development—as an investment. They gauge any current sacrifice for the investment (such as foregoing earnings while in college) against its future return. For example, older workers with many years of seniority typically face high costs when changing an occupation because they may jeopardize accumulated benefits and pension rights and, at least initially, face substantial earnings losses. They also face a relatively short time span in which to realize a return on their investment; for them to switch to another type of work, there must be significant and rapid rewards. Older workers are thus the least likely to change occupations (or employers).

Younger workers, by contrast, have less of an investment in their occupations and their com-

panies and often have less attachment to their geographic residences or even their lifestyles. Many are engaged in early career exploration and are testing the market. Younger workers, generally at the lower end of the earnings scale, have less to lose in switching occupations and have more time to reap higher rewards later in their new field. They face fewer constraints of all types than their older counterparts and are more likely to shop for occupations that will maximize lifetime earnings and satisfaction.7

One measure of human capital investment is occupational tenure, which is the total time a worker has accumulated in an occupation.8 The more time spent in a given field, the more opportunity a worker has to increase his or her stock of occupation- or firm-specific human capital (generally through on-the-job training and experience). However, occupational tenure is not a conclusive measure of human capital, because, as Jacob Mincer has cautioned, "it is not the time spent in the labor market, but the volume of investment activity taking place during that time" which is important. 9 Nonetheless, persons with substantial tenure in one occupation often make a significant change when moving to a new one.

More than half of the workers age 25 and older who changed occupations voluntarily had 3 years or more of experience in the occupations they left during 1986; 16 percent had a decade or more. Among those in the 35-44 age bracket,

Table 3. Voluntary occupational mobility rates by sex, age, race, Hispanic origin, and marital status, January 1987

| Characteristic | Total | Men | Women |
|---|---|--|---|
| Age | | | |
| Total, 16 years and older 16 to 24 years 25 to 34 years 35 to 44 years 45 to 54 years 55 to 64 years 65 years and older | 5.3 12.7 6.6 4.0 1.9 1.0 | 5.0 13.0 6.4 3.5 1.8 .9 | 5.6 12.4 6.8 4.6 2.1 1.1 |
| Race and Hispanic origin | 1 | | |
| White | 5.4 4.4 4.4 | 5.0 4.9 4.9 | 5.9 3.8 3.6 |
| | | | |
| Married, spouse present Single Other marital status | 4.0 9.3 4.8 | 3.7 9.2 4.7 | 4.4 9.4 4.9 |

The occupational

mobility data

clearly indicate

the risk involved

change, the fewer

that the higher

in a voluntary

the people who

employment

will make it.

a group who have had the opportunity to accrue significant amounts of tenure, a quarter had left occupations in which they had spent 10 years or more. Still, workers 25 and older with at least 3 years of experience in their occupations who voluntarily changed occupations had a mobility rate of only 2.2 percent.

An occupation change may also be accompanied by a change of employer. About 55 percent of those who voluntarily changed occupations, age 25 and older, had been with their present firm less than 1 year. (In most cases, this would mean that they had also changed employers.) It seems reasonable to suggest that such dual employer/occupation changes caused a sharp break from the workers' past type of employment; rather than changing occupations within their present firm, they were starting what was, for many, an entirely new line of work.

Because the workers discussed here are those who said they switched occupations for better pay, advancement, or improved working conditions, most of those staying with the same employer were likely to have received promotions. A "same-employer" occupational switch involves little of the risk of a complete employer/occupation break, which could mean loss of seniority and wages, accrued pension benefits, or just the advantages of working in a familiar environment.

The occupational mobility data clearly indicate that the higher the risk involved in a voluntary employment change, the fewer the people who will make it. About 3.4 million workers age 25 and older voluntarily changed occupations, producing an occupational mobility rate of 4.0 percent. If that group is restricted to those with 3 years or more of tenure in the occupation they were leaving, the number falls to 1.9 million. By limiting the group further to those who had also joined a new employer within the year, the total number falls to 1 million. This particular set of workers—those who switched occupations and employers and had at least 3 years invested in their old occupation—made up only 1.2 percent of all employed persons. Thus, each year, only a very small proportion of workers 25 and older with some tenure in their occupation voluntarily make a sharp break in their career paths by changing both employer and occupation. And, a few of these workers could have been making a logical career-path change, such as from a high-level "professional" position to an executive position.

It should be noted that about 700,000 of those workers making dual changes were switching to a new occupation classified in a different broad occupational category from their old occupation. While it is tempting to consider them as

even more definitive career changers, such a concept may not be fully valid because a worker can make a sharp break in occupation within the same broad occupational category. Someone switching, for instance, from being a psychologist to a writer would still be in the professional specialty category.

Other demographic characteristics. Unlike age, gender seems, at least in recent years, to have had a very small impact on mobility rates: the voluntary mobility rates for women and men in 1986 were 5.6 and 5.0 percent, respectively, and the overall rate (persons changing for all reasons) was 10.4 percent for women and 9.6 percent for men. This is in marked contrast to the situation two decades earlier, when the overall occupational mobility rate for women was markedly lower than that for men (6.9 versus 9.9 percent). By 1978, and continuing throughout the 1980's, the rates for women have risen above those for men, indicating perhaps that women were taking advantage of the growing career opportunities available to them.

It is reasonable to speculate that the occupational mobility rates and mobility behavior of men and women will follow roughly similar patterns in the future. The increasing propensity of women to work year round on full-time schedules will enable them to develop stronger and more continuous career attachments, similar to those of men. Their quicker pace of returning to work after having children means, for m/my, few, if any, career interruptions. Also, differences in educational backgrounds of men and women have narrowed. As educational levels converge, the human capital stock women bring to the job market in terms of knowledge and training will become more similar to that of male workers.

Looking at race and Hispanic ethnicity, white workers voluntarily changed occupations at a rate of 5.4 percent in 1986, while blacks and Hispanics each changed at a rate 1 percentage point lower. Again, occupational mobility rates declined with advancing age among all race and ethnic groups. Men changed occupation's at virtually a uniform rate—around 5.0 Fercent regardless of race or ethnic origin. White women, however, changed occupations at a notably higher rate (5.9 percent) than black (3.8 percent) or Hispanic (3.6 percent) women. Conceivably, the combined effects of lower educational levels and the occupational segregation of minority women contribute to the difference between their rate and that of white women. 10

In terms of marital status, single workers—who made up nearly 40 percent of all workers who changed occupations volu tarily in 1986—

It is reasond
speculate thate to
occupation at the
mobility a,
mobility ates and
of men behavior
and
wornen will follow
roughly similar
patterns in the
future.

changed their type of work at twice the rate of married workers. While this differential is somewhat exaggerated, in that single workers are, on average, younger than married workers, unmarried workers had higher mobility rates than married ones in virtually every age group. This probably reflects a strong aversion by persons with family responsibilities to undertake the risks inherent in job changing.

Generally, the lower one's educational attainment, the less likely is that person to change occupations. High school dropouts accounted for 14 percent of all workers age 25 and older employed in both January 1986 and 1987, but made up slightly less than 10 percent of the workers who voluntarily changed occupations. Dropouts also had the lowest voluntary occupational mobility rate, at less than 3 percent. The following tabulation shows the rates of workers who voluntarily changed occupations, by their educational attainment, between January of 1986 and 1987:

| | High s | chool | Co | ollege |
|--------------------------------|----------------------|-------|-----|--------|
| | Less than 4 years | | | |
| 25 years and | | | | |
| older | . 2.7 | 3.9 | 4.7 | 4.3 |
| 25 to 34 years | . 5.5 | 6.5 | 7.0 | 6.8 |
| 35 to 44 years | . 3.3 | 4.0 | 4.4 | 3.9 |
| 45 to 54 years 55 years and | 1.2 | 1.8 | 2.7 | 2.1 |
| older | . 1.0 | .7 | 1.0 | .9 |

Workers completing high school had a voluntary mobility rate of about 4 percent, while those with at least some college changed occupations at a slightly higher rate—4.7 percent for those with 1 to 3 years of college and 4.3 percent for those with 4 years or more. The lower mobility of persons with little formal education reflects, in part, their higher average age.

Human capital theory might help explain the higher mobility rates of college graduates who, with their investment in higher education, tend to have the widest range of skills to offer employ ers and thus more flexibility in choosing occut ations. Such an advantage may be offset, however, by the occupation-specific nature of the education received by most college graduates. An individual with academic training in a career field such as nursing, accounting, or law, for example, would lose much of the value of that training in changing to another occupation. And data on occupations, presented later, confirm that such fields tend to have very low exit rates-that is, few workers leave them for other fields. Further, most professional jobs allow for career advancement internally-not so much by changing occurations outright (although management positi, as are available in all professional fields) but by advancing in the same occupation through increased responsibilities and pay. Also, because professionals and managers are, on average, the highest paid workers, they may often face the most substantial loss of earnings in a new occupation.

Persons with less direct career-oriented bachelor's degrees, such as in the liberal arts or most social sciences, may have less of an investment in a specific career path. It might be ventured that they would have relatively higher mobility rates, reflecting their high skill level, coupled with a comparatively small investment in a specific career field. However, information is not obtained in the CPs on the degree field of college graduates, so that hypothesis cannot be tested.

At the other extreme, the relatively low wages of the least educated workers would make the opportunity costs of job changing—in effect, starting over—relatively low. While that would exert upward pressure on their mobility rates, their very lack of education would tend to reduce the opportunities available to them to switch occupations for higher pay, advancement opportunity, or better working conditions. Also, many of these workers acquire skills almost entirely through on-the-job training, and their relatively narrow range of skills may limit their occupational mobility.

Patterns of voluntary change

About a third of the voluntary job shifting during 1986 occurred within broad occupational

Table 4. Voluntary entry and exit rates for persons age 25 and older in selected occupations, January 1987

| Occupation | Entry rate | Exit rate |
|--|---------------|--------------|
| Executive, administrative, and | | |
| managerial | 5.6 | 3.4 |
| Professional specialty | 2.6 | 2.9 |
| Engineers | 2.2 | 2.6 |
| Health diagnosing | .9 | .6 |
| Health assessment | 2.1 | 2.3 |
| Teachers, college and university | 1.3 | 2.0 |
| Lawyers and judges | 1.3 | .7 |
| Technicians and related support | 4.3 | 3.1 |
| Sales | 4.2 | 5.3 |
| Administrative support, including clerical | 4.9 | 4.7 |
| Service | 3.4 | 4.8 |
| Food service | 3.6 | 6.9 |
| Precision production, craft, and repair | 3.1 | 3.0 |
| Operators, fabricators, and laborers | 4.6 | 4.4 |
| Construction laborers | 7.4 | 7.1 |
| Freight, stock, and material handlers | 6.8 | 6.8 |
| Farming, forestry, and fishing | .8 | 3.1 |

Table 5. Occupational tenure in previous job of displaced workers who changed occupations by sex and age, January 1987

[Percent distribution]

| | Total | | | | | 3 уваг | s or mor | 8 |
|---------------------------|--------------------------|---------|---------------------|-----------------|---|-----------------|-----------------|---------------------|
| Sex and age | Number (in thousands) | Percent | Less than 1 year | 1 to 2 years | Total 3 to 4 years 56.0 17.0 19.4 15.6 67.0 18.2 (1) (1) 57.9 15.6 15.8 15.1 70.8 16.7 (1) (1) 52.4 20.0 25.6 17.4 | 3 to 4 years | 5 to 9 years | 10 years or more |
| Total, 16 years and older | 945 | 100.0 | 9.1 | 34.9 | 56.0 | 17.0 | 19.2 | 19.8 |
| 16 to 24 years | 237 | 100.0 | 14.8 | 66.2 | 19.4 | 15.6 | 3.8 | 0.0 |
| 25 to 54 years | 664 | 100.0 | 7.8 | 25.2 | 67.0 | 18.2 | 24.1 | 24.7 |
| 55 years and older | 45 | (1) | (1) | (1) | (1) | (1) | (1) | (1) |
| Men, 16 years and older | 615 | 100.0 | 10.1 | 31.9 | 57.9 | 15.6 | 19.0 | 23.3 |
| 16 to 24 years | 152 | 100.0 | 14.5 | 69.7 | 15.8 | 15.1 | 0.7 | 0.0 |
| 25 to 54 years | 431 | 100.0 | 9.3 | 20.2 | 70.8 | 16.7 | 24.8 | 29.2 |
| 55 years and older | 32 | (1) | (1) | (1) | (1) | (1) | (1) | (1) |
| Women, 16 years and older | 330 | 100.0 | 7.0 | 40.6 | 52.4 | 20.0 | 19.1 | 13.3 |
| 16 to 24 years | 86 | 100.0 | 14.0 | 59.3 | 25.6 | 17.4 | 8.1 | 0.0 |
| 25 to 54 years | 231 | 100.0 | 4.8 | 34.6 | 60.2 | 21.2 | 23.4 | 16.5 |
| 55 years and older | 13 | (1) | (1) | (1) | (1) | (1) | (1) | (1) |

¹ Percent not shown where base is less than 75,000.

groups. 11 An inference could be made that such activity represented "in-career" rather than "new-career" movement. Much of the rest of the occupational change was between closely related fields, such as sales and management, or between craft and repair occupations and machine operators and inspectors. All of these movements would make sense from a human capital perspective, in that workers looking to advance in a career would shift into related occupations where their accumulated experience would be of greatest value. 12

Some occupations were characterized by a higher proportion of persons entering them from another occupation than leaving them for another occupation, and some were just the opposite. Such flows are demonstrated by the occupation's voluntary entry and exit rates (table 4). An entry rate is the percentage of persons in an occupation in January 1987 who had voluntarily entered it sometime in the preceding year. An exit rate, conversely, is the percentage of persons employed in a specific occupation in January 1986 who subsequently left it voluntarily for a new occupation.

It is difficult, though, to determine why specific occupations had high or low entry or exit rates. Particular rates probably resulted from the combined effects of many factors—the age distribution of the workers employed in the occupation, the pay potential available, the pace of overall employment growth or decline in the occupation, the amount of employee turnover due to the nature of the work, and the educational requirements of the field.

Many of the occupations with both high entry and exit rates employed large numbers of young persons or required little formal education. Among such occupations are construction laborers and freight and stock handlers. Occupations characterized by low voluntary entry and exit rates tend to include the most specialized workers, such as engineers, health-related professionals, college teachers, and lawyers. These occupations were also characterized by generally high earnings levels. By contrast, the farming, forestry, and fishing occupations had a low entry and high exit rate; these occupations have experienced slow growth or even declining employment levels and are characterized by relatively low earnings.

Movements into the executive and managerial occupations can be considered in a somewhat different light from the others. A rise into management for a worker, while ostensibly representing an occupational switch, may not necessarily be a career switch, as such a move could also be thought of as a logical career progression, perhaps even a career culmination. The increased pay and status associated with a move into management certainly make that occupation a goal for many employees, and, in fact, its entry rate was much higher than its exit rate.

Involuntary occupational change

Occupational change, of course, is not always of a voluntary nature. About 1 in 8 persons who change occupations, or nearly 1.3 million workers, lost their job or were laid off from a job.

About three-fourths of those workers were displaced from their previous jobs as a result of a plant closing or moving, slack work, or the abolishment of their positions or shifts. This latter group—displaced workers who changed occupations—is the focus in the remainder of the article. 13

The displaced worker initially faces several labor market choices. One option is to withdraw from the labor force, and, according to a January 1988 CPS supplement on displaced workers. about 1 in 7 of the nearly 5 million workers displaced between 1983 and 1988 were out of the labor force as of the survey date. 14 Not surprisingly, half of those who left the labor force were 55 years or older. The more common choice made by the displaced worker is to find a new job. Again, the individual is faced with several decisions, such as whether to look to a new industry or possibly a new occupation for future employment. A factor influencing the decision is the displaced worker's perception of

Table 6. Industry and occupational distribution of employed persons and of displaced workers who changed occupations, age 25 and older, January 1986

[Percent distribution]

| Industry and occupation | Total employed | Displaced workers |
|---|--|---|
| Industry in January 1986 | | |
| Total wage and salary workers | 100 | 100 |
| Goods-producing industries Agriculture Mining Construction Manufacturing Service-producing industries Transportation and public utilities Trade Finance, insurance, and real estate Services Public administration | 30 1 1 5 23 70 8 17 7 32 6 | 53 1 7 10 35 47 6 16 3 20 2 |
| Occupation in January 1986 | | |
| Total, all workers | 100 | 100 |
| Executive, administrative, and managerial Professional specialty Technicians and related support Sales Administrative support, including clerical Service Precision production, craft, and repair Operators, fabricators, and laborers Farming, forestry, and fishing | 14 15 3 11 16 11 13 15 | 11 4 3 11 13 5 21 30 |

NOTE: Data are for persons employed in both January 1986 and 1987. Industry employment for total wage and salary workers employed on both dates is not available from the January 1987 CPS supplement. These data represent the number of wage and salary workers employed in January 1986 from the January 1986 CPS.

the cause of the job displacement. Was losing the job due to problems specific to the firm? If so, the worker may not have to change industry or occupation. However, if the displacement was a result of an industrywide problem, or an occupation-specific problem, then a new industry or occupation might present greater employment opportunities.

The survey of workers displaced between 1983 and 1988 found that about half of the workers who had become reemployed were in occupations different than those they had lost. This suggests that the declining demand for labor in the original occupation may have been an important factor in the displacement, or that the lost occupations were concentrated in declining industries. A secretary, for example, can easily switch industries while staying in the same occupation; a metal-lathe operator cannot.

A trait common to many of the displaced workers who change occupations is the considerable time invested in the occupations of their lost jobs. As shown in table 5, more than half of these workers had 3 years or more of tenure in the occupation of their lost job. Among persons ages 25 to 54—the bulk of the displaced workers who changed occupations—about 2 of 3 had invested at least 3 years in their previous occupation.

After displacement. After losing their jobs, displaced workers usually face a period of uncertainty. Although about a million of the workers displaced in 1986 had found jobs in new occupations by January 1987, what had happened during the time between their displacement and the new job?

Most displaced workers spent some time out of work; however, more than a quarter of those age 25 and older who had changed occupations reported that they had started working again "right away, within a week." At the other extreme, about 1 in 4 had been out of work 15 weeks or more. The median number of weeks out of work was 7.5 for both sexes. A higher proportion of women than men were out of work 15 weeks or longer, 30 versus 22 percent. Time out of work did not seem to be strongly related to age.

The training of displaced workers in the skills required by today's economy is often cited as being crucial to their future job market success. In January 1987, displaced workers who changed occupations were asked, "Has . . . completed an education or training program since January 1986?" Just 1 in 10 said they had completed such a program. Moreover, of those who had, nearly 60 percent identified the program as employer training; this suggests that very few such

displaced workers who changed occupations received training outside the workplace.

Industry and occupation. Not surprisingly, many of the workers who changed occupations upon displacement were leaving industries where employment was stagnating or declining and thus were gravitating toward more robust industries. About a third of the displaced workers came from manufacturing, while a disproportionate share also came from mining and construction (table 6). They were much less likely to come from the more rapidly growing service-producing sector, particularly the services industry.

Workers who had lost jobs as operators, fabricators, and laborers made up nearly one-third of the displaced who changed occupations; this was twice their representation among all employed persons. In contrast, less than 5 percent of the displaced workers in new occupations had come from professional specialty occupations, much lower than their representation of 15 percent among all workers.

When workers change occupations upon displacement, they often move to a new industry. About two-thirds of these displaced workers were in a different major industry group in their new job. There was an overall shift of these displaced workers who changed occupations from the goods-producing to service-producing industries (table 7). Retail trade experienced the greatest numerical increase, while finance, insurance, and real estate had the largest percentage increase. About half of the net outflow of displaced workers from the goods-producing sector occurred in manufacturing, although the mining and construction industries had the highest percentage of employment decline among the displaced who changed occupations. The large gain among self-employed workers shown in table 7 was, to some extent, the result of our definition. 15

Nearly a quarter of the 710,000 displaced workers age 25 and older who changed occupations found a job within their same major occupational grouping. The majority, however, took a job outside of their previous major occupational grouping. Particular occupations, such as executive, administrative, and managerial; precision production, craft, and repair; and technicians and related support, experienced a net decline in employment among the displaced workers who changed occupations (table 7). In contrast, sales, service, and transportation and material moving occupations saw net gains.

While qualitative judgments regarding particular occupations are difficult to make, many of those who lost jobs also appeared to suffer an

Table 7. Industry and occupational employment in January 1986 and 1987 for displaced workers age 25 and older who changed occupations

[Numbers in thousands]

| industry and occupation | January 1986 | January 1987 | Change, 1986–87 | Percent change, 1986–87 |
|--|-----------------|-----------------|--------------------|-------------------------------|
| Industry and class of worker | | | | |
| Total wage and salary workers | 697 | 661 | -36 | -5 |
| Goods-producing industries | 369 | 228 | -141 | -38 |
| Agriculture | 7 | 8 | 1 | 14 |
| Mining | 48 | 14 | -34 | -71 |
| Construction | 68 | 37 | -31 | -46 |
| Manufacturing | 246 | 169 | -77 | -31 |
| Service-producing industries | 327 | 434 | 107 | 33 |
| Transportation and public utilities | 40 | 60 | 20 | 50 |
| Trade, total | 115 | 153 | 38 | 33 |
| Wholesale trade | 29 | 35 | 6 | 21 |
| Retail trade | 86 | 118 | 32 | 37 |
| Finance, insurance, and real estate | 18 | 49 | 31 | 172 |
| Services | 141 | 161 | 20 | 14 |
| Public administration | 13 | 11 | -2 | -15 |
| Self employed ¹ | 11 | 47 | 36 | 327 |
| Occupation | | | | |
| Executive, administrative, and managerial | 81 | 43 | -38 | -47 |
| Professional specialty | 25 | 32 | 7 | 28 |
| Technicians and related support | 23 | 12 | -11 | -48 |
| Sales | 79 | 100 | 21 | 27 |
| Administrative support, including clerical | 92 | 91 | -1 | -1 |
| Service | 37 | 105 | 68 | 184 |
| Precision production, craft, and repair | 149 | 97 | -52 | -35 |
| Operators, fabricators, and laborers | 214 | 212 | -2 | 1 |
| Machine operators, assemblers, and | 1 | l | 1 | |
| inspectors | 109 | 97 | -12 | -11 |
| Transportation and material moving | 42 | 61 | 19 | 45 |
| Handlers, equipment cleaners, helpers, | 1 | | _ | |
| and laborers | 63 | 54 | -9 | -14 |
| Farming, forestry, and fishing | 9 | 16 | 7 | 78 |

¹ Persons who were classified as losing their jobs because a "self-operated business failed" are excluded from the displaced worker definition, which only includes persons who lost their jobs due to a plant closing or moving, slack work, or the abolishment of their positions or shifts. Thus, the self-employed would not be included among the displaced workers who changed occupations in January 1986 but would be identified in January 1987, as a result of displaced wage and salary workers becoming self-employed. The small number of self-employed identified as displaced in January 1986 were probably misclassified as losing their jobs due to plant closings or moves.

occupational downgrading. Data from the January 1987 supplement showed that two-thirds of the displaced workers with new occupations cited lower earnings in their new jobs, while only about 16 percent said their new jobs paid more.

THE MAJORITY of persons who change occupations do so voluntarily, following the lures of better pay, job advancement, or improved working conditions. The incidence of such voluntary occupational change decreases markedly with age; other factors, such as educational attainment and accumulated occupational experience, play more limited roles. Career change—such as when a person with some tenure in an

occupation changes both occupation and employer—is relatively uncommon.

Far fewer workers were forced to change oc-

cupations after being displaced from their previous jobs. The majority of these workers had lower earnings in their new occupation.

Footnotes

¹ The Current Population Survey is a monthly survey of approximately 56,000 households conducted for the Bureau of Labor Statistics by the Bureau of the Census. Information on occupational mobility has been collected in the January supplement periodically since 1966.

² The data on occupational mobility are subject to certain limitations, such as those stemming from differences in the way respondents interpret "different kind of work." and limitations resulting from recall error. Note, too, that because the survey refers to a worker's occupation only in January 1987 and January 1986, any intermediate changes during the year are not included.

3 William H. Form, "Occupations and Careers," in David L. Sills, ed., International Encyclopedia of Social Sciences, Vol. 11 (New York, Macmillan Co. and The Free Press, 1968), p. 252.

⁴ Harold L. Wilensky, "Orderly Careers and Social Participation: The Impact of Work History on Social Integration in the Middle Mass," American Sociological Review, August 1961, p. 522.

⁵ It should be noted that a career, because it is occupation based, can be carried across different firms or industries.

⁶ James J. Byrne, "Occupational mobility of workers," Monthly Labor Review, February 1975, p. 54.

⁷ Job change among the youngest workers (those 16 to 24 years of age) is often quite different than that for workers 25 and older. The inclusion of a large number of students complicates the analysis of data for the group. For many, the two jobs may have been separated by some period out of the labor force. As a result, such workers do not face the same type of decision about whether to sever an occupational or employer relationship in order to change their field of work, as those relationships will have already been ended. Workers beyond school age, in contrast, would be likely to be making a conscious decision to leave one field of work to pursue another.

⁸ For a more detailed discussion of the occupational tenure data derived from the January 1987 CPS supplement, see Max L. Carey, "Occupational tenure in 1987: many workers have remained in their fields," Monthly Labor Review, October 1988, pp. 3-12.

⁹ Jacob Mincer, Schooling, Experience, and Earnings (New York, Columbia University Press, 1974), p. 143

10 In an important study, Finis Welch has written that he knows of no human capital theory of discrimination that exists ("Human Capital Theory: Education, Discrimination, and Life Cycles," American Economic Review, May 1975, p. 72). This is not to say that this topic has been ignored in the human capital literature. See two works by Lester C. Thurow, Poverty and Discrimination (Washington, DC, The Brookings Institution, 1969) and Generating Inequality (New York, Basic Books, 1975); and one by Glenn Cain, The Challenge of Dual and Radical Theories of the Labor Market to Orthodox Theories (Madison, University of Wisconsin, The Institute for Research on Poverty, 1973). Some labor market structural theorists have also addressed the issue. In their view, the labor market is segmented by institutional rules and habits into primary and secondary markets, or multiple gradations thereof. They suggest that occupational mobility follows different patterns in each market. Black workers, for instance, are found in some studies to be disproportionately represented in "secondary," or lower

wage, lower skilled jobs, and that movement out of such jobs is difficult. For discussions of labor market theory and its implications on mobility by race, see Michael J. Piore, "Notes for a theory of labor market stratification," in R.C. Edwards, M. Reich, and D.M. Gordon, eds., Labor Market Segmentation (Lexington, Massachusetts, Heath Books, 1975), pp. 125-50; Peter M. Doeringer and Michael J. Piore, Internal Labor Markets and Manpower Analysis (Lexington, Massachusetts, Heath Books, 1971); and Michael L. Wachter, "Primary and Secondary Labor Markets: A Critique of the Dual Approach" (Washington, DC. The Brookings Institution, Brookings Papers of Economic Activity, 1974)

11 A significant amount of occupational changing within broad occupational groups—using overall occupational mobility rates—has been found in past studies of the CPS mobility supplement data. Byrne even referred to it as a "traditional pattern." (Byrne, "Occupational mobility of workers," pp. 55-56).

12 It should be noted that an occupational change can represent the next incremental step in a career, or a change in careers. The sharpness of the occupational switch is one of the determinants of which activity is taking place. Hiestand names two types of changes: The "45-degree" change, where there is relative continuity between the new and old occupations, and the "90-degree" change, where there is little continuity between them. (D.L. Hiestand, Changing Careers After 35, New York, Columbia University Press, 1971). In a similar vein, Bell speaks of changes where previous training needs to be built upon, or where the previous training is rendered obsolete. (D. Bell, "Training Potential Among Older Workers," in W.H. Dun and V.M. Thompson, eds., An Evaluation of Policy-Related Research on Programs for Mid-Life Career Redirection, Vol. 2: Major Findings (Santa Monica, CA, Rand Corporation, 1975).

13 The definition of displaced workers who change occupations is similar in construct to the definition of displaced workers presented in previous BLS studies. However, the displaced worker definition used in analyzing data from CPS supplements conducted in January 1984, 1986, and 1988, required that workers have 3 years or more of tenure in their lost jobs. In this analysis, no such tenure requirement is placed on displaced workers, largely because of the relatively small sample size. For information on displaced workers, see Francis W. Horvath, "The pulse of economic change: displaced workers of 1981-85," Monthly Labor Review, June 1987, pp. 3-17; and Paul O. Flaim and Ellen Sehgal, "Displaced workers of 1979-1983: how well have they fared?," Monthly Labor Review June 1985, pp. 3-16.

14 "BLS Reports on Worker Displacement," USDL News, 88-611, Dec. 9, 1988.

15 Persons who were classified as losing their jobs because a "self-operated business failed" are excluded from the displaced worker definition, which only includes persons who lost their jobs due to a plant closing or moving, slack work, or the abolishment of their positions or shifts. Thus, the self-employed would not be included among the displaced workers who changed occupations in January 1986 but would be identified in January 1987, as a result of displaced wage and salary workers becoming self-employed. The small number of self-employed identified as displaced in January 1986 (table 7) were probably misclassified as losing their jobs due to plant closings or moves